

Claim Amendments

Please amend the claims to be as follows.

1. (currently amended) A switching system, the switching system comprising:
 - a first set of switches configured with a first instance of meshing software such that the switches in the first set are members of a first mesh domain;
 - a second set of switches configured with a second instance of the meshing software such that the switches in the second set are members of a second mesh domain; and
 - a third set of switches configured with both the first and second instances of the meshing software such that the switches in the third set are members of both the first and second mesh domains,

wherein the switches are configured to insert a mesh identifier in a packet to identify which instance of the meshing software is associated with the packet.
2. (original) The switching system of claim 1, further comprising a link between a mesh port of a switch in the first set and a mesh port of a switch in the third set, wherein both mesh ports are configured to be members of the first mesh domain.
3. (original) The switching system of claim 2, further comprising a link between a mesh port of a switch in the second set and a mesh port of a switch in the third set, wherein both mesh ports are configured to be members of the second mesh domain.
4. (original) The switching system of claim 1, wherein a switch in the third set is configured to provide routing of packets between the first and second mesh domains.

5. (canceled)
6. (currently amended) The switching system of ~~claim 5~~ claim 1, wherein the switches are further configured with a mesh debug protocol which periodically advertises the mesh identifier(s) associated with each switch to other switches.
7. (currently amended) A packet switch apparatus, the apparatus comprising:
multiple ports configured to receive and transmit data packets;
a switch controller coupled to the plurality of ports; and
memory coupled to the switch controller and configured to hold instructions
and data for use by the controller,
wherein the memory holds multiple instances of meshing software that are
executing on the apparatus, and
wherein the apparatus is configured to insert a mesh identifier in a packet to
identify which instance of the meshing software is associated with the
packet.
8. (original) The packet switch apparatus of claim 7, wherein at least one port is configured to be a mesh port that is a member of a first mesh domain, and at least one port is configured to be a mesh port that is a member of a second mesh domain.
9. (original) The packet switch apparatus of claim 8, wherein at least one port is configured to be a non-mesh port that is not a member of any mesh domain.

10. (original) The packet switch apparatus of claim 7, wherein the memory further includes a routing module to provide intra-switch routing of packets between different mesh domains.
11. (canceled)
12. (currently amended) The packet switch apparatus of ~~claim 11~~ claim 7, wherein the apparatus is further configured with a mesh debug protocol which periodically advertises the mesh identifier(s) associated with the apparatus to other switches.
13. (canceled)
14. (canceled)
15. (canceled)
16. (original) A method of providing multiple-instance meshing in a switching system, the method comprising:
 - inserting a mesh identifier into a meshing packet to identify which mesh instance is associated with the packet; and
 - processing the meshing packet using an instance of meshing software corresponding to the mesh identifier.
17. (original) The method of claim 16, further comprising:
 - periodically advertising from a switch that mesh identifiers associated with the switch to other switches in the switching system.